

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

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For

HOLDER FOR PITA POCKETS, TACOS AND THE LIKE

BACKGROUND OF THE INVENTION

This is a nonprovisional patent application claiming priority of provisional patent application serial number 60/448,274 filed February 19, 2003

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Field of the Invention

This invention relates to holders that support one or more; pita pockets, tacos, or other similarly shaped food items. The new holder supports a minimum of one of the food items while positioning the open side of the food item upright to prevent its contents from easily falling out during preparation and eating of the food item.

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Description of Related Art

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Pita pockets and tacos are food items that consist of an open sided outer shell, designed for holding various food fillings. The geometries of their outer shells make it difficult to rest them in an upright position, with out aided support. When pita pockets, tacos, or other similarly shaped food items are placed on their side, the contents are more likely to fall out of the shell.

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The pita pocket is typically a half circular section cut from the round pita bread. The pita pocket is formed when it is split along the cut edge, separating the outer walls to form an opening. The seam around the outer circumference of the circular edge maintains intact, thus creating a circular pocket. In most instances the pita pocket is filled with various desired food items.

Due to the radius on the bottom edge of the pita pocket, it is typically served lying on its side on a plate or eating surface, often the pita pocket is placed in to a custom shaped paper wrap to prevent the loss of contents falling out of the opening during transportation and eating. The pita pocket contents will usually fall out of the opening most frequently because it has to rest on its side.

Tacos are traditionally a Mexican food that consists of an edible open sided taco shell designed to hold various food fillings. There are many different types of taco shells in regards to size, hardness, and ingredients. The two most popular taco shells are the soft and hard shells. Both soft and hard taco shells are formed from a generally round shaped flour or corn tortilla.

The taco shell geometry is slightly different from the pita pocket. The opening is the inverse of the pita pocket, where the circular edge is open and the contents rests along the folded or straight edge. The geometry of the taco shell provides even less support then the pita pocket does to prevent the filling from falling out.

The soft taco shell is folded along the mid section of the soft round flour tortilla. While usually being hand held, the filling is added into the flexible shell. Holding the soft taco shell while filling and transporting can be difficult, especially if it is desired to prepare more than one taco at a time. Often it is desired to heat the soft tacos with contents, depending upon how well they were folded, the shell tends to want to unfold.

The traditional hard taco shell has the same basic simple geometry as a folded soft taco shell, with the exception that the hard taco shell geometry is more rigid, its sidewalls do not unfold. Although some times fun to prepare and eat, there is an inherent challenge with the functionality of the geometry of the classical hard

taco shell, its folded geometry consists of a rounded bottom, and sidewalls that extend almost parallel to each other. In preparing the hard taco shells it is often desired to heat the shells in an oven to soften the shells. Conventional oven heating is the most desired method to heat the hard taco shell. The rounded bottom tends to make the hard tacos awkward to heat in an upright position while in an oven. The best surface to rest the tacos on is one of the tacos sidewalls. When the taco shell is heated on its side, the other sidewall tends to droop down, closing the opening for the filling.

Another problem that arises while preparing tacos is while filling with contents, especially if more than one taco is desired to be prepared at a given time, it is awkward to support the taco shells upright without them tipping over. The best way to prepare the tacos without a proper support is to prepare one at a time, then to rest them on their side or to try to lean them against each other, so they do not tip on their side. The filling is more likely to fall out of the tacos when they are rested on their side during preparation, transportation and resting in between consuming bites.

There are many taco holder designs that have been disclosed in various utility as well as many design patents that describe rigid devices to support tacos.

There are recent designs for taco holders that are intended to be disposable, disclosed in patents 6,273,278 and 5,971,168. Patent 6,273,278 discloses a semi-rigid holder that is designed to be foldable and requires simplified assembly. This design also discloses a base portion that provides structural strength. The materials used to fabricate the 6,273,278 and 5,971,168 designs are not resistant to

conventional oven heating. Restaurants as well as consumers would benefit from devices that can be made reusable or disposable and do not require any assembly.

Brief Summary of the invention

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Therefore, it is an object of this invention to provide a new and improved pita pocket and taco holder that would have an appealing functional geometry that is rigid, not requiring assembly, is stackable, and incorporates handle means to independently transport the device with food contents. The invention can be made out of varying material types and by various manufacturing methods for both disposable and reusable devices, which can withstand exposure to different oven types and temperatures.

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Brief Description of Several Views of the Drawing

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FIG. 1 is a perspective view of one embodiment of this invention that can hold a single pita pocket, taco, or other single food item;

FIG. 2 is a perspective view of one embodiment of this invention that can hold multiple pita pockets, tacos or other multiple food items;

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FIG. 3 is a perspective view of one embodiment of this invention made from thin metal foil or other thin materials, incorporating structural reinforcement features;

FIG. 4 is a perspective view of one embodiment of this invention formed from plastic or other thin walled materials that incorporates structural reinforcement features;

FIG. 5 is a perspective view of one embodiment of this invention that incorporates full sidewalls and an alternate handle means;

FIG. 6 is a side view of various shaped devices stacked together;

FIG. 7 is a perspective view of one embodiment of this invention whose outer surface conforms to the food items geometry;

FIG. 8 is a perspective view of one embodiment that has added components to improve grip and to insulate handles and base.

Detailed Description of the Invention

The embodiment in Fig. 1 is shown to support a single food item as depicted by the pita pocket 1 positioned above the single item holder 2. A substantially thin walled material forms the shape of the single item holder 2. The said single item holder incorporates a minimum of one aperture 3. The ends of the aperture cut out 4 and 5 act as the base support for the food item. The sidewalls of the aperture cut out 6 and 7 act as the side supports for the food item. Since pita pockets vary in size, the aperture's dimensions in length and width will vary accordingly. The base of the device is formed by edges 8 and 9 as seen in Fig. 1. The base stably supports the device and its contents onto a desired surface such as a table, or serving plate. The base edges 8 and 9 are shown to be straight in Fig. 1, however their length may also incorporate intermittent breaks to form feet or multiple contact points that lie on a common base plane. The base length can be extended beyond the required width of the holding portion in order to provide added stability, especially in single item holders. The holder 2 in Fig. 1 is equipped with tabs 10 and 11 that act as handles.

The tabs 10 and 11 provide means to independently carry the holder with contents from one place to another without the need for any additional supporting devices.

The interior volume between the base edges 8 and 9 is generally hollow and allows multiple holders to be stacked one on top of the other for compact storage or display.

A multiple item holder embodiment described in Fig. 2 displays three tacos 12 positioned above their respective apertures 14, 15, and 16 within the multiple item holder 13. One base edge 17 of the holder is shown to be relieved in the middle having feet 18 and 19 on either end that lie on a common base plane with the opposing base edge 20. An appropriate aperture size for holding commercially available standard sized tacos is 1.25 inches wide with a full radius on each end of the aperture, leaving material before slot ends break into the base edges 17 and 20. This appropriate aperture would be cut through the outer surface 21, which is formed in an arc having a radius of 1.5 inches, and an arc length of 4.75 inches. The material width of the outer surface 21 in between the apertures is .20 inches in the desired embodiment for holding tacos. Other aperture shapes and sizes will be apparent for similar food items. Other outer-formed surface geometries that can stack one on top of the other will also be apparent

Some materials and construction methods suitable to fabricate reusable version devices as shown in Fig. 1 and Fig. 2 that can be heated in microwave ovens are; molded ceramics and plastics, various die cut and thermal forming plastics and foams, and wood that has been cut and shaped. Some materials that are resistant to conventional oven heat include ceramics, some high temperature plastics, cast metals, various sheet metals, such as aluminum, stainless steel, plated

steel, copper, silver, etc. The preferred economical method to fabricate versions made from sheet metal is punch and die stamping and forming. Aluminum sheet metal has sufficient rigidity without reinforcement features to form the devices as shown in Fig. 1 and Fig. 2, when its wall thickness is greater than .04 inches thick.

5 The preferred thickness of (5052 aluminum) sheet metal forming the outer geometry is .05/ .07 inches thick. Other manufacturing methods that can be utilized to fabricate reusable metal version holders are forgings, metal castings, and most traditional and modern cutting and forming manufacturing techniques.

10 Disposable or minimum use versions of this invention may be made from most of the materials and manufacturing methods sited above with the exception of utilizing thinner walled material to reduce costs. Thinner metal materials can be used such as aluminum or stainless steel foils in very thin sheet thickness to form very cost effective disposable or minimum use versions.

15 Fig. 3 describes an embodiment that is made from thin metal foil with reinforced features. The form is readily made out of aluminum foil in a thickness of .005/ .007-inch thick sheet. The Fig. 3 embodiment incorporates the same functional features as the reusable versions described in Fig. 1 and Fig. 2. Devices made from the thin aluminum foil benefit from structural reinforcement features such as crimped edge bends 22, rolled edges 23, indented surface geometries 24 or raised surface
20 geometries 25, and raised or indented ribs 26 might be formed for increased rigidity. Utilizing presses with die sets can form the metal foil versions. Multiple foil sheets can be layered together and spaced between separators such as coated paper sheet, so that one press can fabricate multiple devices in a single sequence of operations. The same applies to devices made from other thin walled materials; the

thin walled structure can obtain similar strength characteristics as their thicker walled versions by implementing simple reinforcement features.

Fig. 4 describes another thin walled material embodiment. This version can be readily injection molded out of various plastics, or formed from thin walled die cut and thermal formed plastics having a wall thickness less than .04 inch thick. When thermally formed, the thin material can bend to form the extended exterior sidewalls on the ends of the device 27, and the formed edges within the apertures 28. The bended edge geometry generates increased reinforcement, as well as provides the visual effect of a device with thick wall sections. To further decrease manufacturing costs, multiple thermal formed plastic sheets can be formed together in a single operation with a release barrier in between each sheet.

For added reinforcement, the embodiment shown in Fig. 5 depicts the sidewall 29 extended further to create a full wall, enclosing both ends of the device. The wall 29 is slightly tapered so that the open base length is wider than the top portion to allow multiple devices to stack and nest one on top of the other. The added material on the sidewall allows for an alternate area to incorporate a handle means to carry the device and contents by. There is an area to allow for an aperture 30 to be cut through the sidewall, the aperture 30 is suitable for a finger to grip, preferably a 1.0-inch diameter hole. Other suitable aperture shapes and sizes will be obvious. The full sidewall 29 gives added device stiffness. The materials and manufacturing processes that are most suitable for the embodiment in Fig. 5 are those that are also suitable to fabricate versions described above in the Fig. 4 embodiment such as; injection molded plastics, thermal forming plastics, and other materials that are readily formed, such as foams, paper pulp, recycled paper, and

paper or fabric board. Paperboard and cotton fabric boards of various grades and thickness may be used when they incorporate laminates and or bonding agents like epoxies or adhesives as required for added strength and to adhere folded side walls to front and back walls as required to form outer shapes that conform to the claims of this invention.

In all embodiments, it is apparent that other outer surface formed shapes may be generated to accomplish similarly equivalent holding capabilities as the arced cylindrical shapes disclosed above. The arced cylindrical shaped end view 31 as shown in Fig. 6, describes the basic outer surface geometries of the embodiments described in Fig. 1 and Fig. 2. The arced cylindrical outer surface shape may be substituted by other functional shaped geometries that can readily stack together such as; a triangular shape 32 as viewed in end view Fig. 6, or a tapered rectangular shape 33 as viewed in Fig. 6, or a varying surface geometry 34. The surface geometry of item 34, has an added unique property, its mid section 35 is indented lower than its top sections 36 and 37, this benefits the device further by providing an area where fingers can reach lower onto the food item for a less unobstructed grip. The same varying outer geometry shapes described in Fig. 6 may also be applied to the thin walled version devices with reinforcement features described in Fig. 3, Fig. 4, and Fig. 5 as well. Other stackable curvilinear geometries will also be apparent.

An additional embodiment of the invention is described in Fig. 7 where the outer formed shape has a substantially uniform thin wall thickness 38, and the outer form 39 is shaped to specifically contour to the food items geometry, while also allowing downward facing side walls to be tapered sufficiently in order for multiple devices having the same geometry to be stacked one on top of the other in a nesting

fashion. Fabrication methods and materials that would be applicable to this shape are injection-molded plastics, ceramics, cast metals, forged metals, formed metals, thermal vacuum formed plastics, molded foam, and pressed paper pulp.

5 The devices can have added components to the base contact surfaces and also on the handle portions. In viewing Fig. 8, the component 40 added to the base is to primarily improve the devices gripping characteristics to the serving plate or eating surface, and could also act as an insulator, to prevent excessive heating to and from the device. An added component 41 to the handle area would also act as a heat insulator to reduce the heat transmitted by the device to the hands, and it also
10 increases gripping properties. Handle means that consist of an aperture through the sidewall of the device such as the aperture 30 in Fig. 5 can be fitted with grommets of varying materials and styles that fit into the aperture. The gripping component materials may be high temperature elastomers, plastics, wood, or other material that are heat resistant in various types of ovens. The means to attach the components
15 can be by snap fit, adhesives, shrink fit, dip coating, riveted, or by other standard fastening means.

Additions of other components may be incorporated to fixedly support the device to serving surfaces. One component may be the addition of suction cups 42 as shown in Fig. 8. Magnets may be incorporated to help fix the device to magnetic
20 surfaces. The component may also be a removable accessory such as spring-loaded clips, or other fastener means to specific serving plates, or surfaces. Standard adhesives as well as standard fasteners can be used to fix the device to a specific serving surface.

Variations of the disclosed holder have been discussed. It is intended that there be variations in geometries as well as suitable material types, including non biodegradable, biodegradable, and edible materials, as well as diverse manufacturing methods to be suitable within the scope of the invention and that the invention is not limited to only those specifically disclosed within this specification. Therefore it is the intent of the appended claims to cover all such variations as come within the true spirit and scope of this invention.